

REMARKS

In the above-identified Office Action the examiner rejected claims 1-3 under 35 USC 102(e) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over US Patent No. 6,365,700 to Graham ("Graham"). The examiner rejected claim 4 under 35 USC 103(a) as being unpatentable over Graham as applied above, and further in view of US Patent No. 5,939,499 to Anderson, et al. ("Anderson").

Claims 1-2 are directed to a method for forming a moisture reactive hot melt adhesive including: forming a hydroxyl-functional prepolymer by reacting first components comprising a polyol selected from the group consisting of polyether polyols, polyester polyols, and mixtures thereof, the polyol having a weight average molecular weight of from 250 to 5,000; and a polyisocyanate, the ratio of OH/NCO groups of the first components on an equivalents basis being from 1.05 to 3.0; admixing second components including the hydroxyl-functional prepolymer, a crystalline polyester polyol, and a polyisocyanate, the weight ratio of the hydroxyl-functional prepolymer to the polyol being from 9/1 to 1/9, and the ratio of NCO/OH groups of the second components on an equivalents basis being from 1.5 to 2.2; and reacting, or allowing to react, the admixture. Claim 3 is directed to a moisture reactive hot melt adhesive formed by the method of claim 1 or claim 2. Claim 4 is directed to a method for bonding substrates including the step of: forming a moisture reactive hot melt adhesive by the method of claim 1 or claim 2.

35 USC 102(e) REJECTION OF CLAIMS 1-3

The examiner rejected claims 1-3 under 35 USC 102(e) as being anticipated by Graham. The examiner points to certain elements in Graham but concedes that Graham does not disclose admixing second components including the hydroxyl-functional prepolymer, a crystalline polyester polyol,

and a polyisocyanate, the weight ratio of the hydroxyl-functional prepolymer to the polyol being from 9/1 to 1/9. Further, claim 1 (and claims 2-3 which depend therefrom) recites the polyol of the first components as having a weight average molecular weight of from 250 to 5,000. Graham's disclosures do not provide applicant's invention of claims 1-3 with a sufficient degree of specificity to represent anticipation under 35 USC 102(e).

Further, the examiner points to Example 2 of Graham as illustrative of an anticipating weight ratio of hydroxyl-functional polymer to polyol; applicants respectfully point out, however, that the polyol used in the first step of Graham's Example 2, DYNACOLL 7361, is indicated at Graham, column 2, lines 19-21 to have a molecular weight of 7000. Applicant's claims 1-3 recite the polyol of their first components as having a weight average molecular weight of from 250 to 5,000. Applicant submits that Graham's Example 2, therefore, is not an anticipating disclosure.

Applicant respectfully submits that each and every limitation of his invention of claims 1-3 is not disclosed by Graham. Applicant urges that his claims 1-3 are not anticipated by Graham under 35 USC 102(e). Applicant respectfully requests the examiner to withdraw this rejection.

35 USC 103(a) REJECTION OF CLAIMS 1-3

The examiner rejected claims 1-3 under 35 USC 103(a) as being obvious over Graham. Applicant traverses because the examiner does not meet his burden of providing a prima facie case of obviousness by pointing out any teaching or suggestion within Graham to modify Graham's method or composition. The examiner points to certain elements in Graham but concedes that Graham does not disclose admixing second components including the hydroxyl-functional prepolymer, a crystalline polyester polyol, and a polyisocyanate, the weight ratio of the hydroxyl-functional prepolymer to the polyol being from 9/1 to 1/9. Neither does Graham teach or suggest

changing the ratio of prepolymer to second component polyol at all and particularly not to the range of ratios claimed by applicant.

Further, claims 1-3 recite the polyol of the first components as having a weight average molecular weight of from 250 to 5,000. Graham discloses molecular weights in the range of 2000 to 15,000 with the best commercially available polyester having a molecular weight of 7,200, but states that "if a lower molecular weight hydroxyl terminated polyester is used, i.e., one with a molecular weight of 3600 ... the viscosity of the resulting prepolymer is too high for efficient mixing..." (Graham, page 4, lines 19-22), thus points out the inapplicability of a first component polyol molecular weight of 3600 to Graham's own method and further fails to provide enablement of such a molecular weight in his process, thereby teaching away from the lower molecular weights claimed by applicant.

The examiner now suggests that Graham points toward optimum molecular weights including at least 3,601 to 5,000. There is no support for this supposition within Graham; the inapplicability of a molecular weight of 3,600 falls far short of suggesting that 3,601 would be efficacious – there is no such suggestion within Graham and Graham's comment that the polyester molecular weight can be too high falls far short of suggesting 5,000 as a possible upper limit, particularly since Graham indicates, as above, that a polyester of molecular weight 7,200 is the best commercially available polyol, and that a molecular weight of 15,000 "will work as well". Applicant respectfully submits that the examiner is relying on applicant's own disclosure and thereby providing much too quantitative a reading of Graham's disclosure.

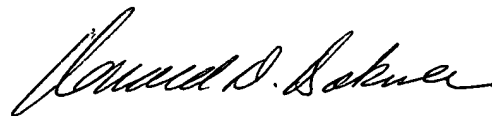
Applicant respectfully submits that Graham provides no teaching, suggestion, or motivation to applicant's method or composition as claimed. Applicant respectfully concludes that his claims 1-3 are not obvious over Graham under 35 USC 103(a). Applicant respectfully requests the examiner to withdraw this rejection.

35 USC 103(a) REJECTION OF CLAIM 4

The examiner rejected claim 4 under 35 USC 103(a) as being unpatentable over Graham as applied above, and further in view of Anderson. The examiner argues that Graham teaches all of the limitations of claim 4 except for a teaching of a method for applying a moisture reactive hot melt adhesive. Applicant traverses, *inter alia*, because the examiner has himself conceded in his rejections of claims 1-3, that Graham does not disclose each and every limitation of claim 1, and claim 2 which is dependent therefrom, which read into claim 4. Further, claims 1-2, as amended herein, and, as argued herein above, are not taught or suggested by Graham. Therefore the teachings of Graham cannot be perfected by Anderson which is directed to a method for applying different hot melt adhesives. Applicant respectfully concludes that his claim 4 is not obvious over Graham in view of Anderson under 35 USC 103(a). Applicant respectfully requests the examiner to withdraw this rejection.

Applicant respectfully requests the examiner to reconsider his rejections in view of applicant's remarks and to pass applicant's claims 1-4 to allowance at this time. Applicant's agent is available in order to expedite the allowance of this case at 215-641-7822 or by FAX at 215-619-1918.

Respectfully Submitted,



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